

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/019472

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> F16D3/20, 3/22, F16C3/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> F16D3/20, 3/223, 3/224, F16C3/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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Kokai Jitsuyo Shinan Koho	1971-2005	Toroku Jitsuyo Shinan Koho	1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 11-101259 A (NTN Corp.), 13 April, 1999 (13.04.99), Column 1, line 1 to column 7, line 23; Figs. 1, 2 (Family: none)	1-4
Y	JP 2003-130082 A (NTN Corp.), 08 May, 2003 (08.05.03), Full text; all drawings & FR 2831626 A1 & US 2003/0083135 A1	1-4
Y	JP 51-138257 A (Löhr & Bromkamp GmbH), 29 November, 1976 (29.11.76), Page 3, upper right column, lines 3 to 8; Fig. 3 & DE 2522670 A1 & FR 2311960 A1 & GB 1553369 A & US 4116020 A	1-4

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
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Date of the actual completion of the international search  
07 April, 2005 (07.04.05)Date of mailing of the international search report  
26 April, 2005 (26.04.05)Name and mailing address of the ISA/  
Japanese Patent Office

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ATTACHMENT E

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 57-167520 A (Lohr & Bromkamp GmbH.), 15 October, 1982 (15.10.82), Page 1, lower right column, 8 to 11; page 3, upper right column, lines 12 to 17; Fig. 3 & DE 3114290 A1 & FR 2503811 A1 & GB 2096738 A & US 4608028 A	1-4
Y	JP 8-121491 A (Koyo Seiko Co., Ltd.), 14 May, 1996 (14.05.96), Full text; all drawings (Family: none)	1-4
Y	JP 9-177813 A (NTN Corp.), 11 July, 1997 (11.07.97), Full text; all drawings & DE 19653573 A1 & US 5855519 A	1-4
Y	US 3785172 A (GENERAL MOTORS CORP.), 15 January, 1974 (15.01.74), Column 4, lines 11 to 30; column 5, lines 21 to 34; column 6, line 55 to column 7, line 4; column 7, lines 22 to 30; Figs. 1, 4 & FR 2205968 A1 & GB 1399409 A	1-4